CLAIMS

1. A housing for a sensor, for example a sensor for providing an output signal indicative of at least one parameter of a flow of gases through said housing, comprising:

an internal cavity within said housing,

a first aperture in said housing in fluid communication with said hollow interior, in use accepting said flow of gases, then flowing into said internal cavity,

a second aperture in said housing in fluid communication with said internal cavity, in use said flow of gases flowing from said internal cavity through said second aperture and said second aperture being at least partially higher than said first aperture,

a sensor mounting disposed within said housing between said first aperture and said second aperture, adapted such that in use a sensor located in said sensor mounting being at least partially within the path of said flow of gases, and

at least one condensation deflector within said internal cavity on or adjacent to said sensor housing means adapted to in use direct any condensation that forms within said internal cavity at least partially away from a sensor - located in said sensor mounting.

2. A housing for a sensor as claimed in claim 1 wherein said parameter relates to the flow rate of said flow of gases.

3. A housing for a sensor as claimed in claim 1 wherein said parameter relates to the humidity of said flow of gases.

4. A housing for a sensor as claimed in claim 1 wherein said parameter relates to the temperature of said flow of gases.

5. A housing for a sensor as claimed in anyone of claims 1 to 4 wherein said housing is generally elbow-shaped.

6. A housing for a sensor as claimed in claims 5 wherein said elbow-shape comprises a first passage with a first end at said first aperture and a second end intersecting with a first end of a second passage having a second end at said second aperture, said first passageway being at an angle to said second passageway.

7. A housing for a sensor as claimed in claim 6 wherein said angle is 30°.

8. A housing for a sensor as claimed in claims 6 or 7 wherein said sensor mounting is disposed within said first passageway.

9. A housing for a sensor as claimed in anyone of claims 6 to 8 wherein said condensation deflector is located on or adjacent to the intersection between said first passageway and said second passageway.

10. A housing for a sensor as claimed in anyone of claims 6 to 9 wherein said sensor mounting includes a notch at what is in use its lowermost portion, adapted such that in use any condensation which flows to or forms on a sensor located in said sensor mounting or said sensor mounting is at least partially directed to flow through said notch and along said first passageway.

11. A housing for a sensor as claimed in any one of claims 1 to 10 adapted to be used in conjunction with a humidifier said humidifier adapted to humidify said flow of gases, and having an outlet and said first aperture being connected to or at least in fluid communication with said outlet, said housing adapted such that in use said first passageway thereby being substantially vertical.

12. A housing for a sensor as claimed in anyone of claim 6 to 11 wherein said second passageway being substantially cylindrical, and including a third aperture formed by the intersection of said first passageway, said condensation deflecting means comprising at least a ledge formed in the periphery of and extending into said third

aperture, said ledge adapted such that in use said sensor mounting or a sensor mounted in sensor mounting being below and thereby protected from condensation by, said ledge.

13. A housing for a sensor as claimed in anyone claims 6 to 12 wherein at least a portion of said second passageway including a roughened surface adapted to prevent the beading and allow continuous run-off of any condensation forming within said second passageway.

14. A housing for a sensor as claimed in claim 13 wherein said second passageway also including an anti-fogging agent to further prevent the beading and allow continuous run-off of any condensation forming within said second passageway.

15. A housing for a sensor as claimed in any one of claims 6 to 14 wherein at least a portion of said first passageway including a roughened surface adapted to prevent the beading and allow continuous run-off of any condensation forming within said first passageway.

16. A housing for a sensor as claimed in claim 15 wherein said first passageway also including an anti-fogging agent to further prevent the beading and allow continuous run-off of any condensation forming within said first passageway.

17. A housing for a sensor as claimed in anyone of claims 1 to 16 wherein said housing constructed using moulded plastics.

18. A housing for a sensor as claimed in claim 17 wherein said plastic material used is polypropylene, polyethylene, polysalphone or SAN.

19. A housing for a sensor as claimed in claim 1 wherein said second aperture is designed to connect to a conduit to convey said flow of gases to a patient, said conduit

preferably including heating means to reduce condensation within said conduit.

20. A housing for a sensor as claimed in claim 17 wherein said housing is integral within said conduit.